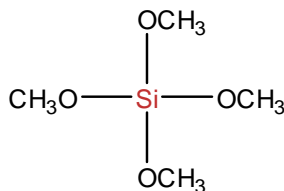


SiSiB[®] PC5410E

Tetramethoxysilane (TMOS)

Tetramethyl orthosilicate

CHEMICAL STRUCTURE



INTRODUCTION

SiSiB[®] PC5410E, the methyl ester of orthosilicic acid, is a colorless or light yellowish, low-viscosity liquid with an SiO₂ content of 39.5%.

TYPICAL PHYSICAL PROPERTIES

CAS No.	681-84-5
EINECS No.	211-656-4
Formula	C ₄ H ₁₂ O ₄ Si
Molecular Weight	152.22
Boiling Point	122°C [760mmHg]
Flash Point	26°C
Color and Appearance	Colorless transparent liquid
Density _{25/25°C}	1.032
Refractive Index	1.3688 [20°C]
Min. Purity	99.5%
CL(Total, ppb)	Max.1000

APPLICATIONS

SiSiB[®] PC5410E can be used as an inorganic binder for refractory fillers and pigments, like precision investment castings.

SiSiB[®] PC5410E can be used as non-chlorine or ultra-low chlorine insulation heat resistant material.

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SiSiB[®] PC5410E can be used in the semiconductor industry to produce high quality abrasive particles.

SiSiB[®] PC5410E can be used as a second backup casting coating. It cures faster than colloidal silica system.

SiSiB[®] PC5410E can be hydrolyzed to form silicon dioxide (silica).

SiSiB[®] PC5410E can be used as a binder in zinc-rich (corrosion resistant) coating.

SiSiB[®] PC5410E can be used as a starting material for sol-gel process.

SiSiB[®] PC5410E can be used as a crosslinking agent for silicone sealant.

SiSiB[®] PC5410E can be used as a drying agent in sealing compositions.

SiSiB[®] PC5410E can be used as a chemical intermediate.

Compared to ethyl silicate, SiSiB[®] PC5411 has a higher silica concentration which brings cost advantages, but methyl alcohol is generated in the usage environment, so measures are necessary to counteract this.

PACKING AND STORAGE

SiSiB[®] PC5410E is supplied in 200Kg steel drum.

In the unopened original container SiSiB[®] PC5410E has a shelf life of one year in a dry and cool place.

NOTES

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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Please send all technical questions concerning quality and product safety to:
silanes@SiSiB.com.